



**MACHINE TOOLS**

***SHARPENING TOOLS  
PROFILE***

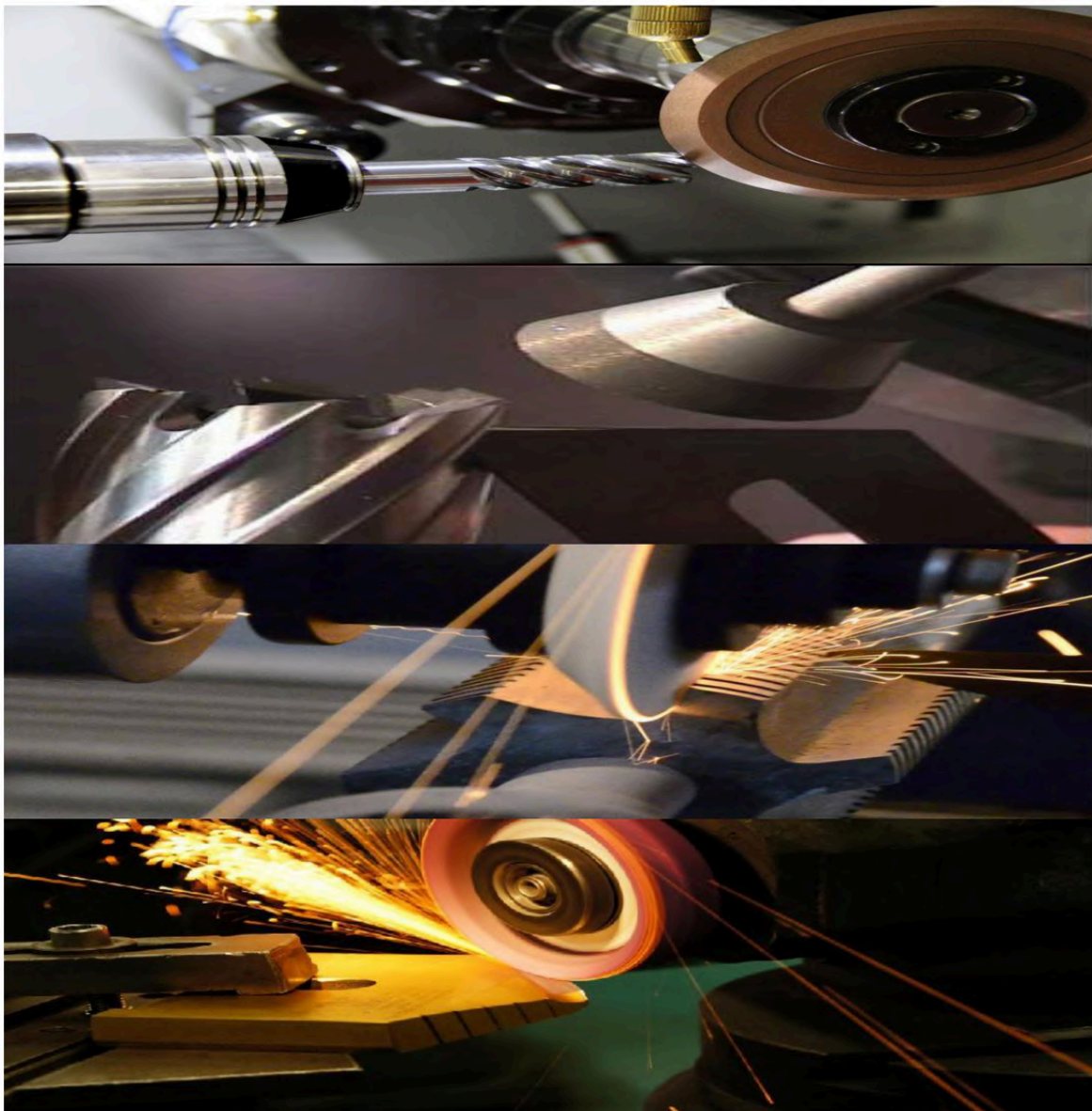




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## *Sharpening Examples*

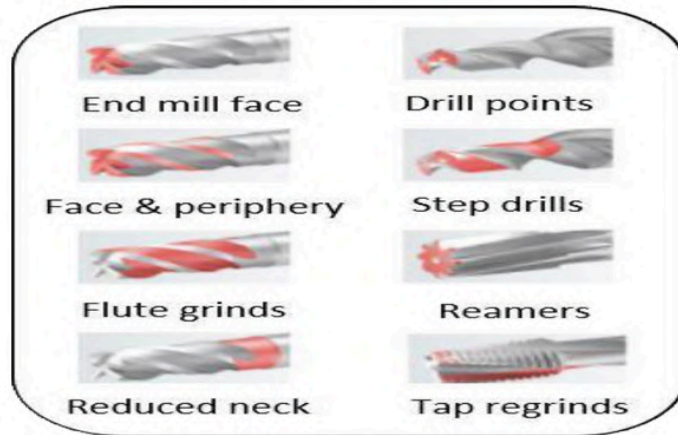
### *Services we offer on Sharpening*





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## Sharpening Examples



*Benefits of Re-grinding / Sharpening of Cutters:*

- ✓ Reduce your need to Purchase new cutters
- ✓ Cost effective way on extending your cutters
- ✓ Regrind to certain size
- ✓ Saving up to 75% of a new cutters Price
- ✓ Modifications can be done for optimal cutting performance
- ✓ HSS and Carbide
- ✓ Cutters are dipped with Tough skin ( wax ) to avoid damage and corrosion
- ✓ Recoating ( min quantity Requirements )



# Sharpening Examples

## Sharpening Examples

### Endmills (3 – 8 Flutes)



End Mills are usually regrind on flutes itself to a minimum diameter.  
 eg: 20Ø End mill regrind to a 19.5Ø. Cutters are marked to the specific size it was regrinding to.  
 In some cases where a short portion on the tool length is worn, we usually just cut off the worn portion and regrind a new face

### Slot Drills (2 Flutes)



Slot drills specific diameters are required. In most cases we do the face only to keep the size the same with slightly shorter length. Where the flutes are worn on complete cutter we regrind it to a standard slot size  
 eg: 16Ø Slot drill to 14Ø Slot Drill

### Ball Noses (2 – 4 Flutes)



The sharpening of ball nose radius is the importance here. The Cutter is sharpened and Diameter is kept the same. Alternatively regrind to a specific radius where it is possible

### Rippers (Roughing Cutter)



Rippers are sharpened inside of flutes to clear wear. The profile on diameter remains the same as the amount removed on the inside does not reduce the size

### Corner Radius Cutters (R4-20)



Sharpening of Radius cutter are done in the inside where it's been worn

## Sharpening Examples

### Woodruff Cutters & T slot Cutters



Woodruffs & T slot cutters are refurbished on the sides

### Dovetail Cutters



Dovetail cutters are regrinding on the side angles and face to remove the wear

### Counter sinks (Single flute – Multi Flutes 60° & 90°)



Countersinks are sharpened in a precise way in the inside and on the radius with enough backing to create up optimal performance

### Counter Bores



The end cutting Face are sharpened. Original diameter kept the same

### Reamers (Taper or Parallel)



Boilermakers Bridge reamers are sharpened on the first 30-40% of cutting length of flutes  
Parallel reamers are only done on the Face. All reamers keep their original size

## Sharpening Examples

### Taps & Dies; Ridget Dies



Numerous types of taps can be re-sharpened on the inside without changing the Size of tap. Taps are ready for sharpening when first full thread is worn or chipped  
Die Nuts are internal re-grinding

### Module Cutter, Side & Face cutters, Angle Cutters



All of these cutters can be regrinding to standard size or specific modifications to suite profile.  
eg: Spline Profiles on Armature shafts

### Keyway Broaches (Push Type)



Keyway Broaches size from 6mm up to 25mm for precisions face sharpening

## Sharpening Examples

### Rotarybroach Cutters (Slugger bits)

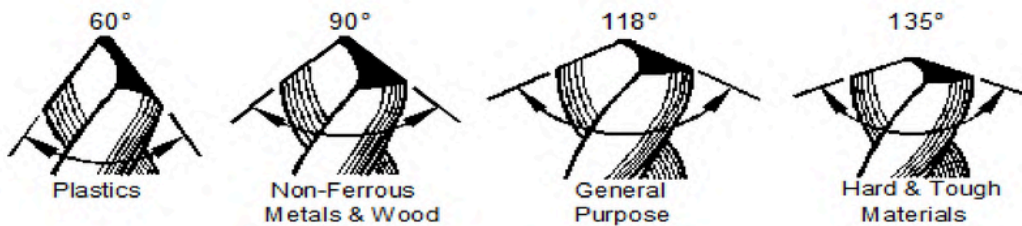


Refurbishments of these cutters are very frequent and proper geometry is needed when sharpening. Broken Cutters can be reconstructed where the length is shortend on break. Only the face is done on it

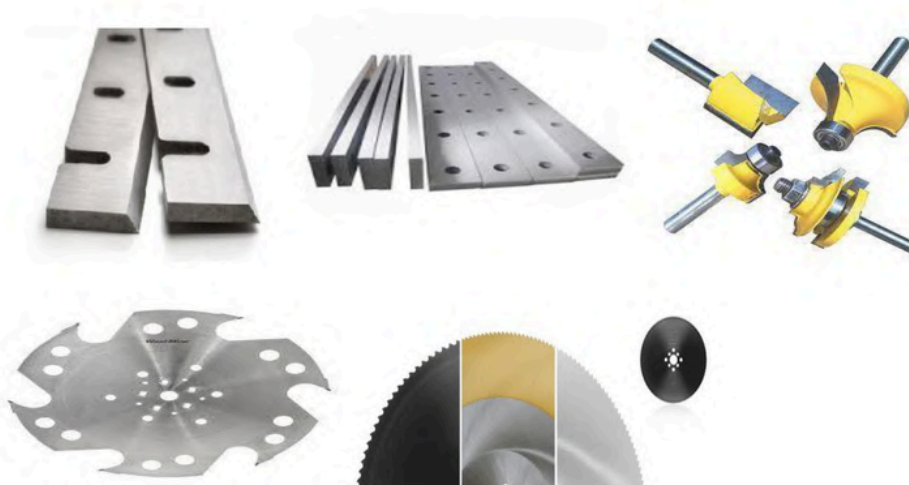
### Drills HSS Or Carbide ( 45°,60°,90°,118°,120°,130°,140°)



Various Angle Points for different applications. Starting from the smallest 6mm size up to the biggest of 90mm. Broken faces can be reconstructed



### Other Sharpening





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# *Get in Touch*



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